

Environment Trends in Latin America and the Caribbean



A LAC/RSD/E Production

April 2002



The 2-Minute Analysis

- ◆ Trends for environment in LAC are bad, and
- ◆ Getting worse -- rates of degradation are accelerating
- ◆ Negative impacts on economic growth, health, social stability, and security
 - ◆ 4-8% drag on GDP (World Bank)
 - ◆ increased vulnerability to disasters
 - ◆ undermines stability
- ◆ Influences security of the U.S.
 - ◆ increases immigration
 - ◆ reduces economic opportunities



The 2-Minute Analysis (cont.)

USAID's APPROACH:

USAID develops and disseminates environmentally and socially sound practices that aim to reduce negative environmental trends while ensuring returns competitive with or superior to current wasteful practices. It is essential that people have sound resource-use alternatives available to meet their needs.

The 2-Minute Analysis (cont.)

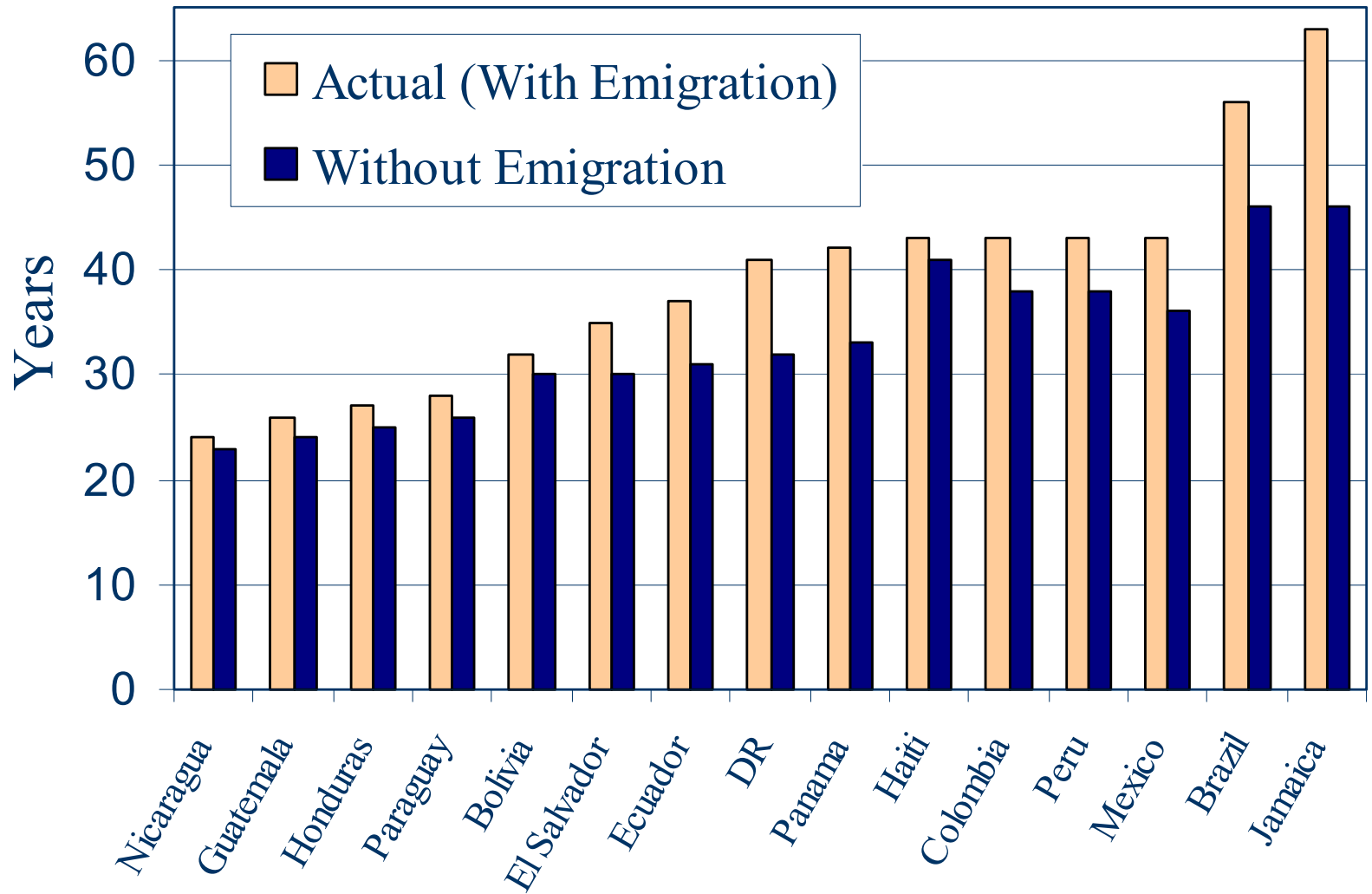
Recommendations:

- 1) Increase awareness of environment both within and outside USAID (solutions as well as problems)
- 2) Maintain and advance forestry and biodiversity successes
- 3) More fully engage market forces and the private sector
- 4) Pollution prevention -- Promote win-win solutions
- 5) Energy -- Influence World Bank and IDB programs
- 6) Re-evaluate rural v. urban focus
- 7) Water -- Foster cross-sectoral coordination
- 8) Incorporate disaster mitigation as an important component of development
- 9) Continue to support environmental programs in all missions



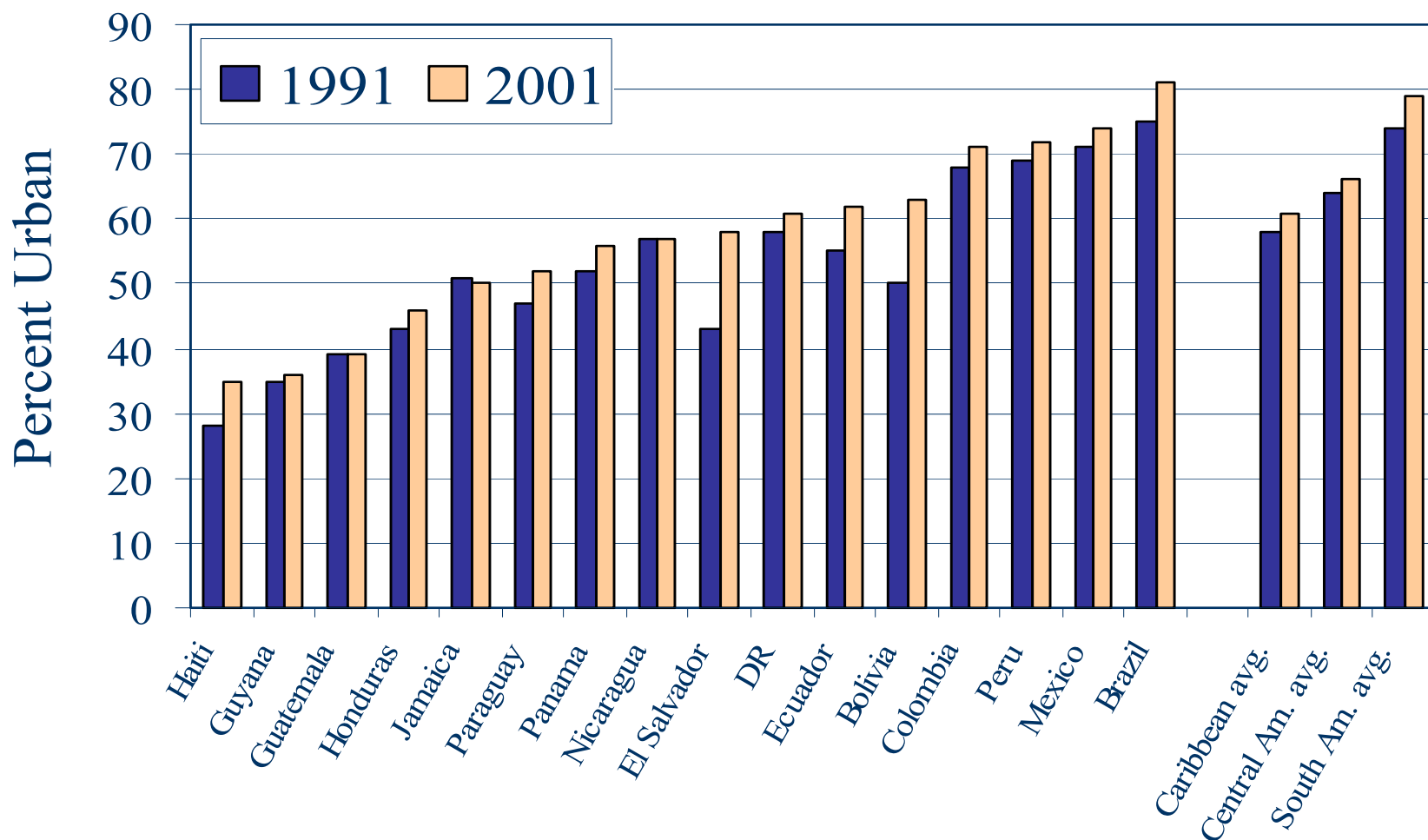
Context

Population Doubling Time (Years)



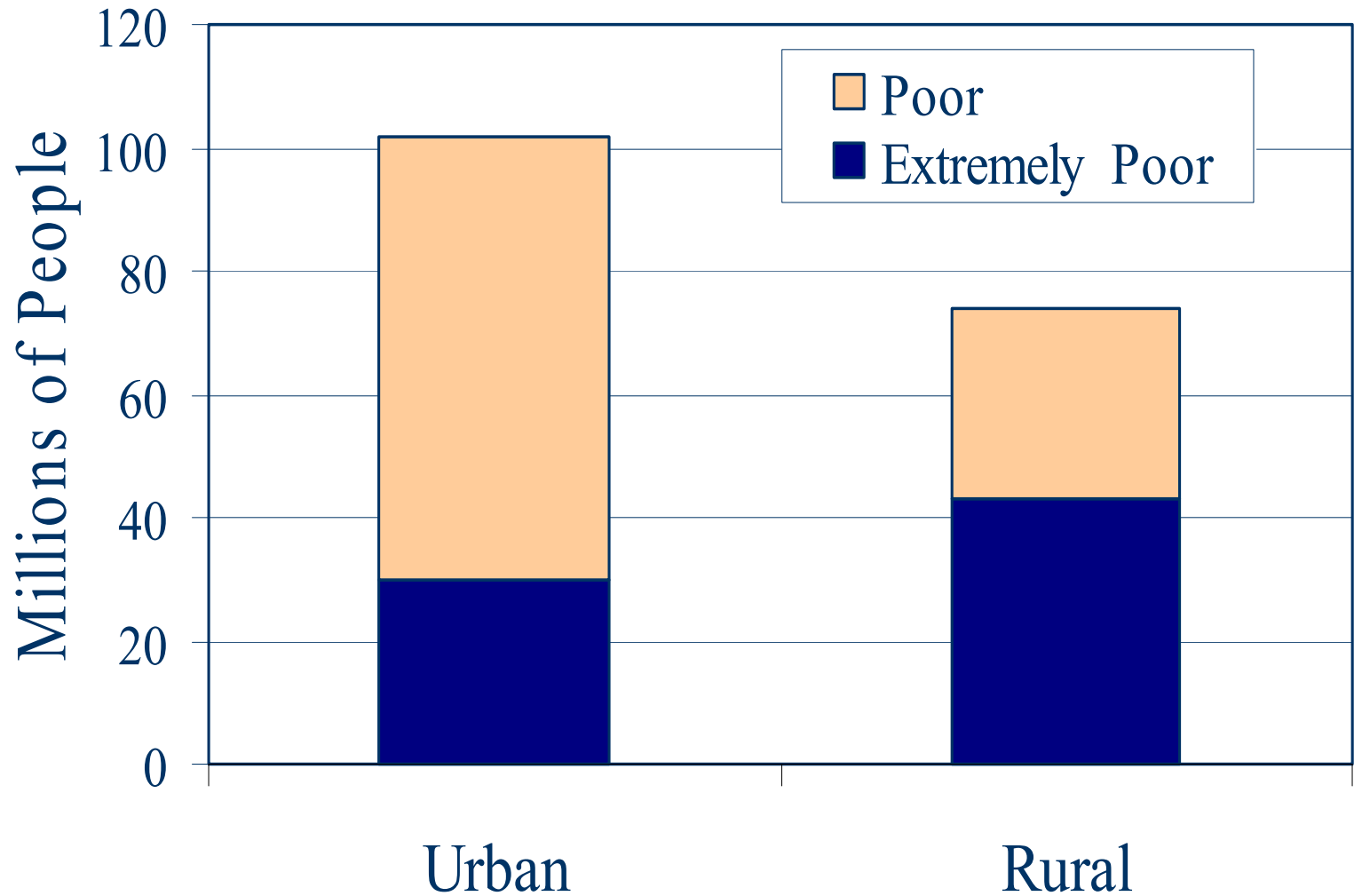
Source: Population Reference Bureau

Degree of Urbanization



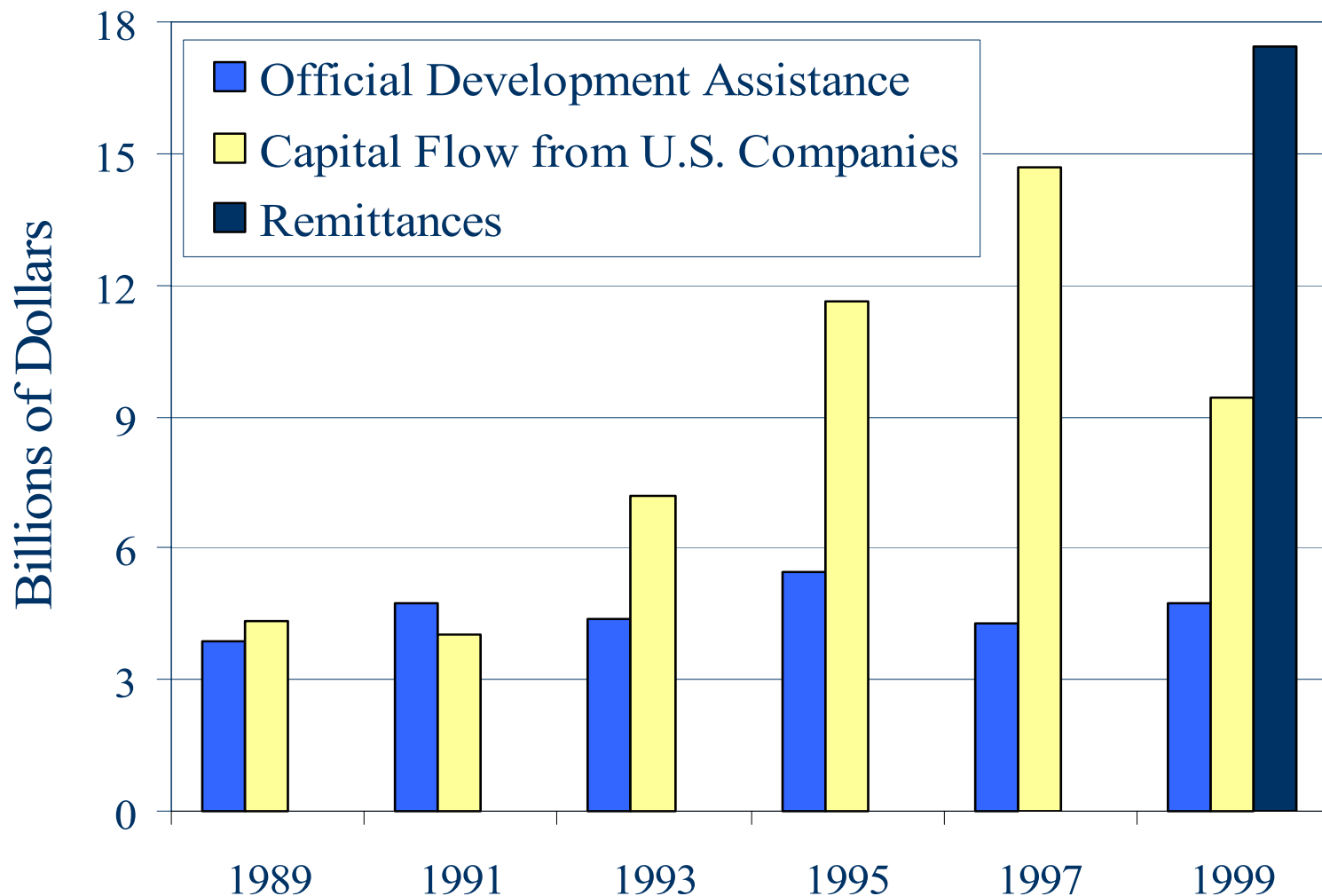
Source: Population Reference Bureau

Poverty - Urban v. Rural



Source: World Bank

LAC Investment - Public and Private



Source: USAID (2000, Latin America and the Caribbean, Selected Economic and Social Data)



Environment Trends



What Is Environment?

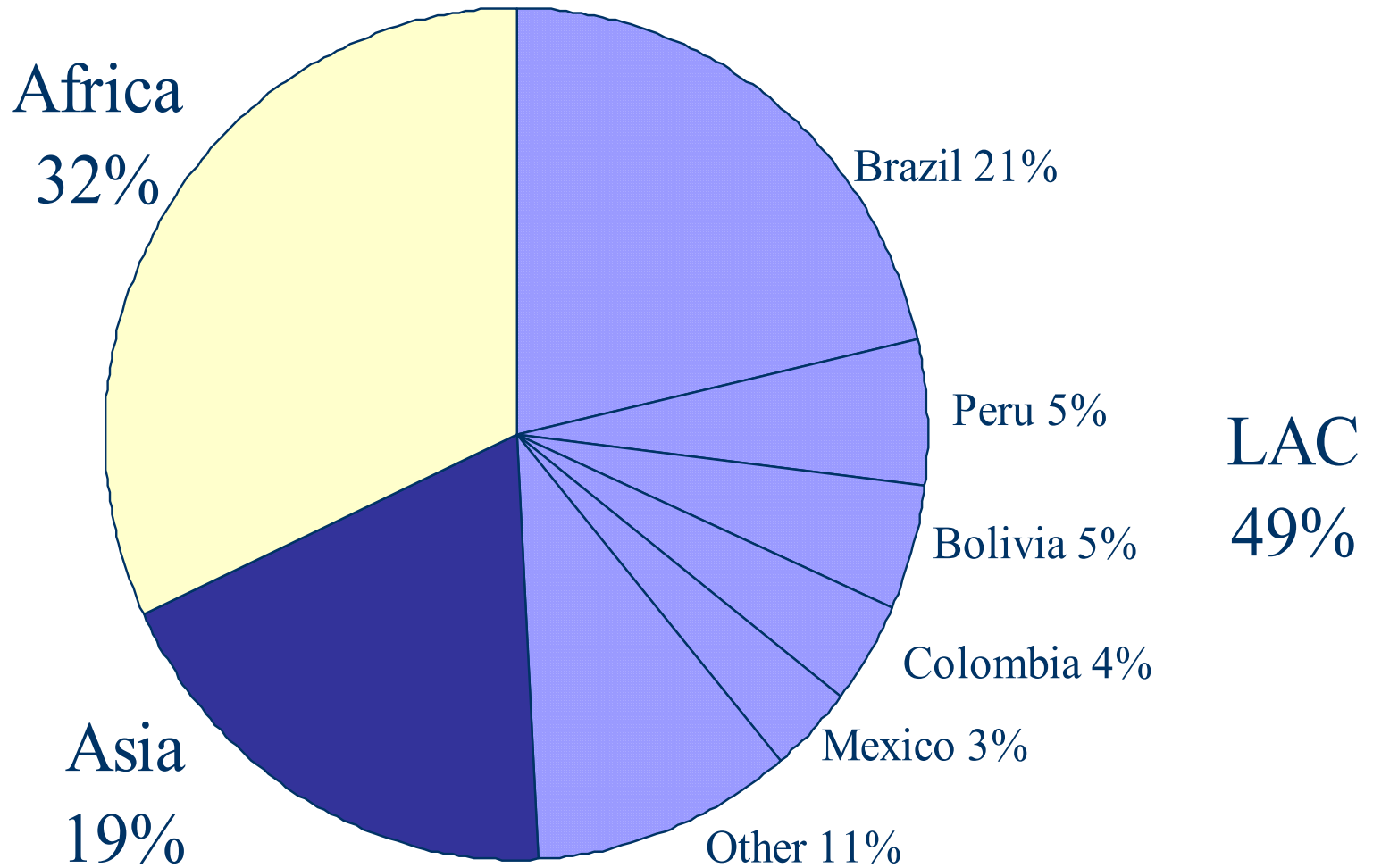
- ◆ Agency Coding:
 - ◆ Environmental Health
 - ◆ Sustainable Agriculture
 - ◆ Sustainable Resource Management
(Forests, Water, Coastal Zones)
 - ◆ Biodiversity (Forests, Aquatic, Other)
 - ◆ Global Climate Change
 - ◆ Pollution Prevention & Management
 - ◆ Energy (Clean, Renewable, & Efficient)
- ◆ Cross-sectoral
- ◆ Long-term challenges
- ◆ Externalities



Key LAC Environment Sectors

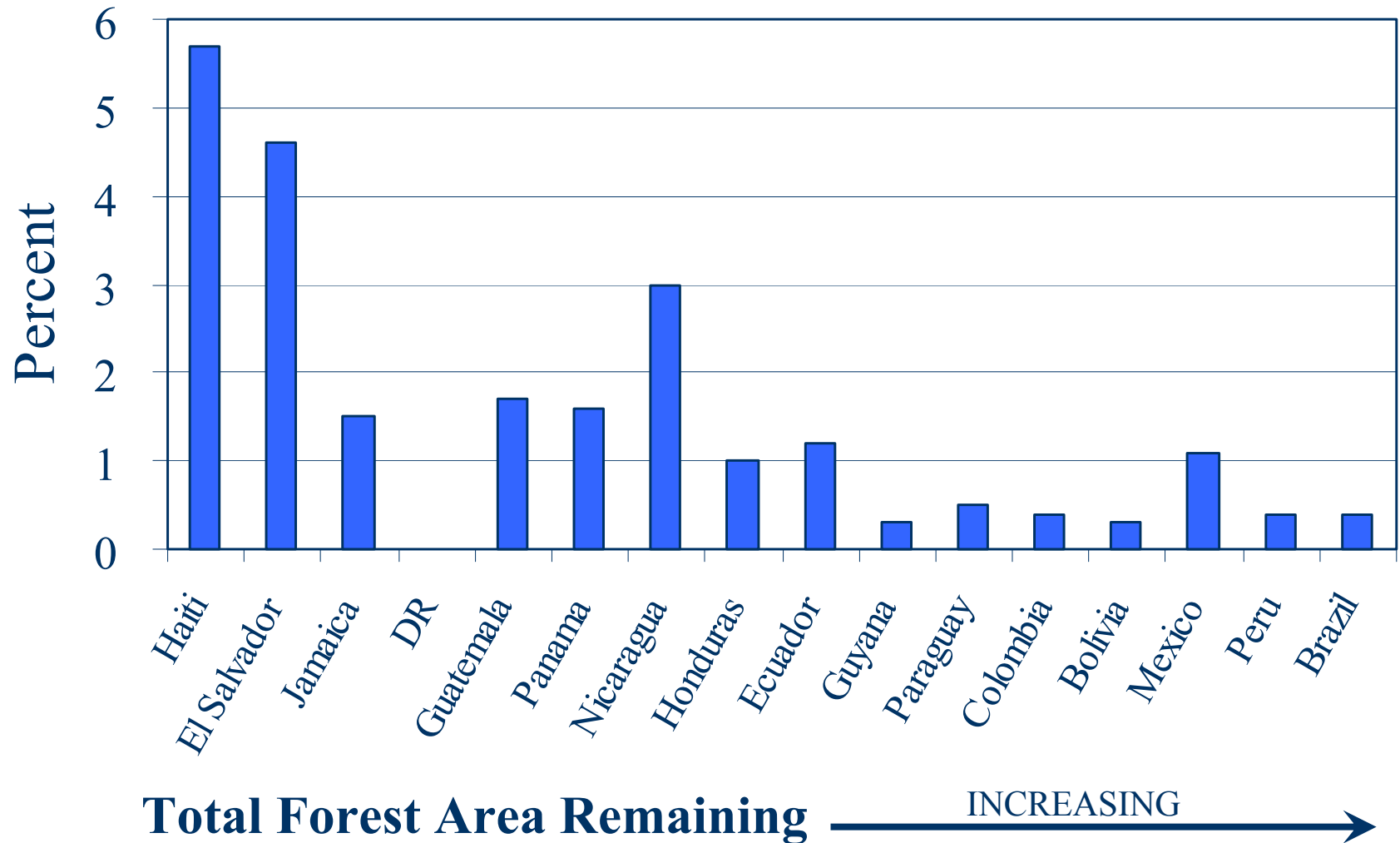
- ◆ Forest
- ◆ Biodiversity
- ◆ Coastal/Marine
- ◆ Water
- ◆ Industry and Energy
- ◆ Natural Disasters

Tropical Forest by Region (1996)



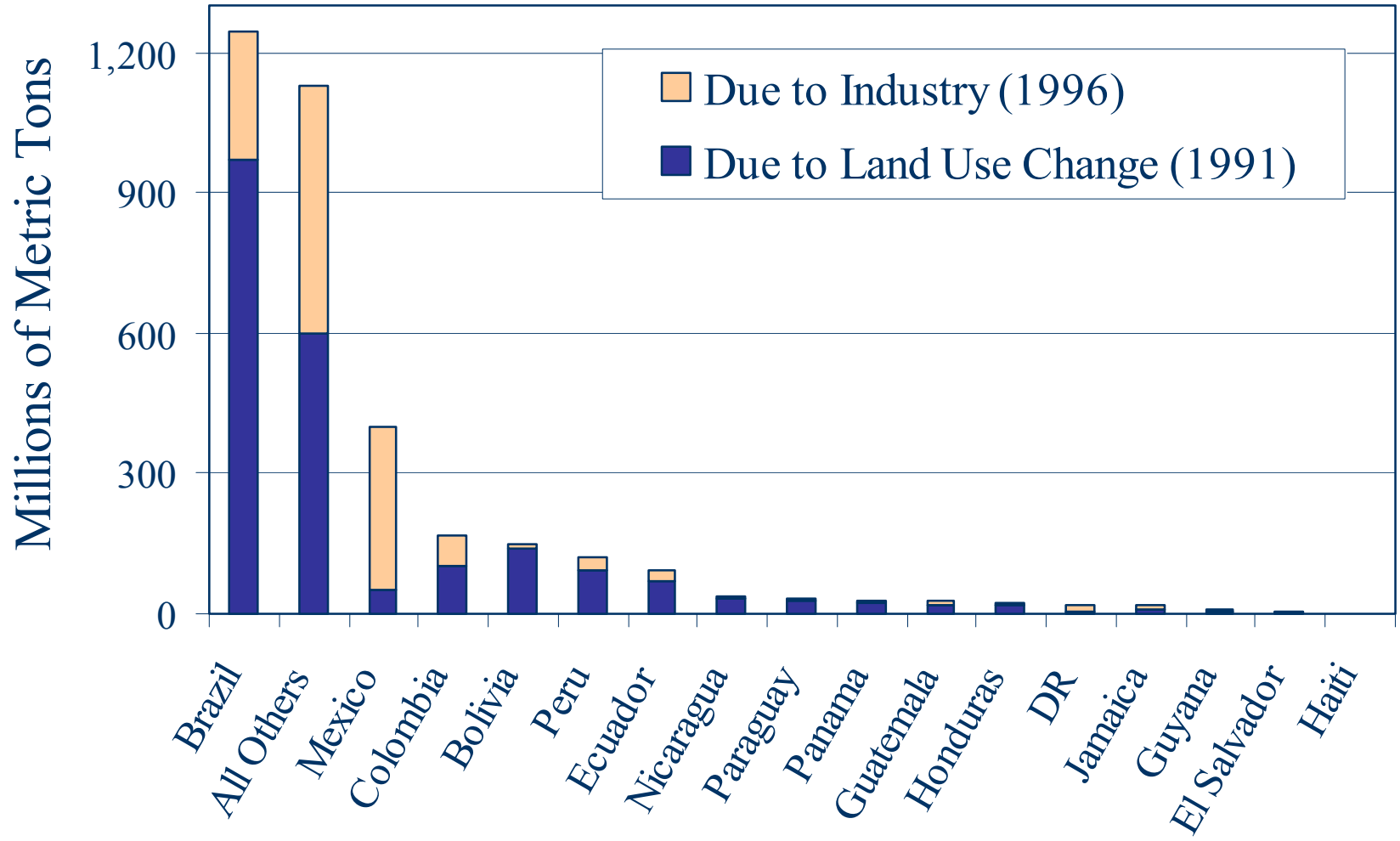
Source: World Resources Institute

Annual Deforestation Rate, 1990-2000



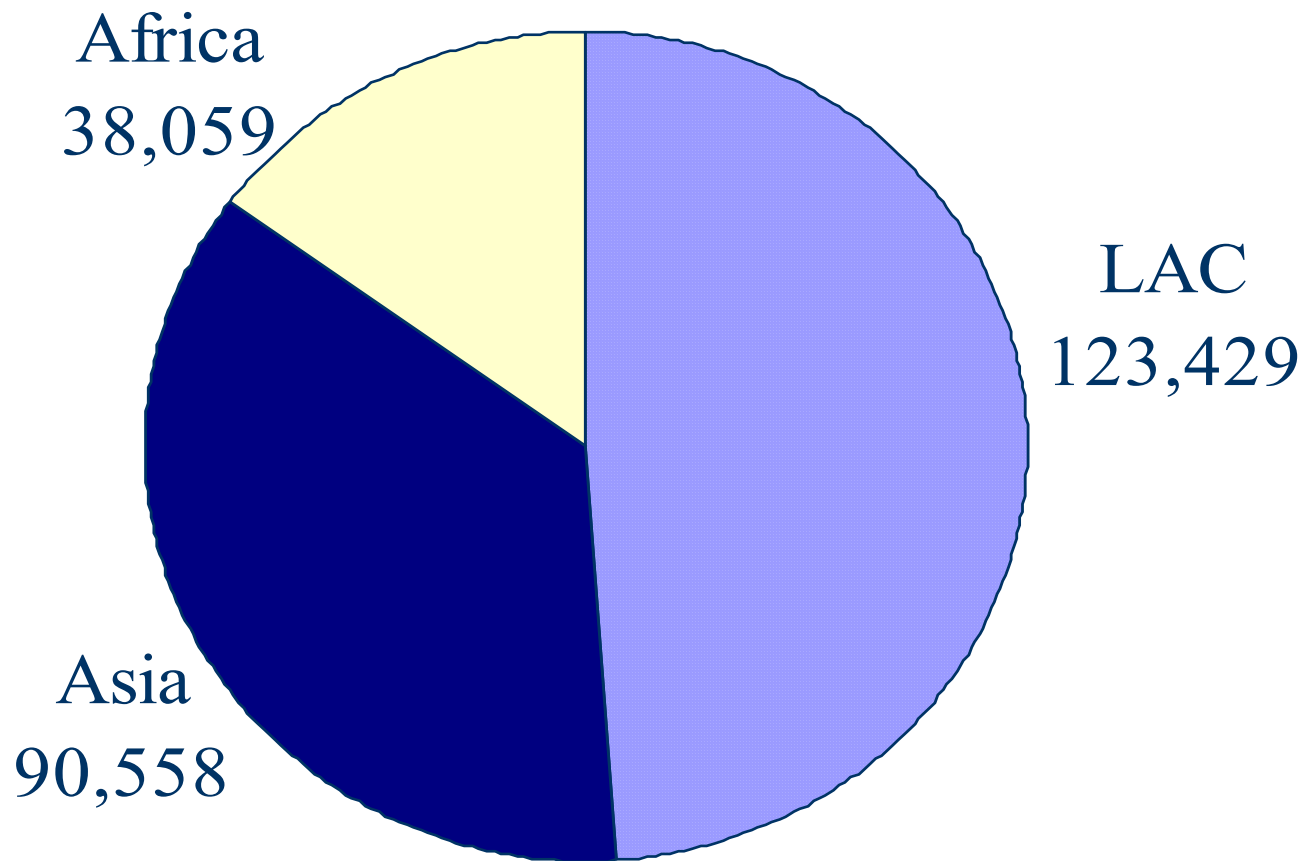
Source: World Resources Institute

Global Climate Change: CO₂ Emissions



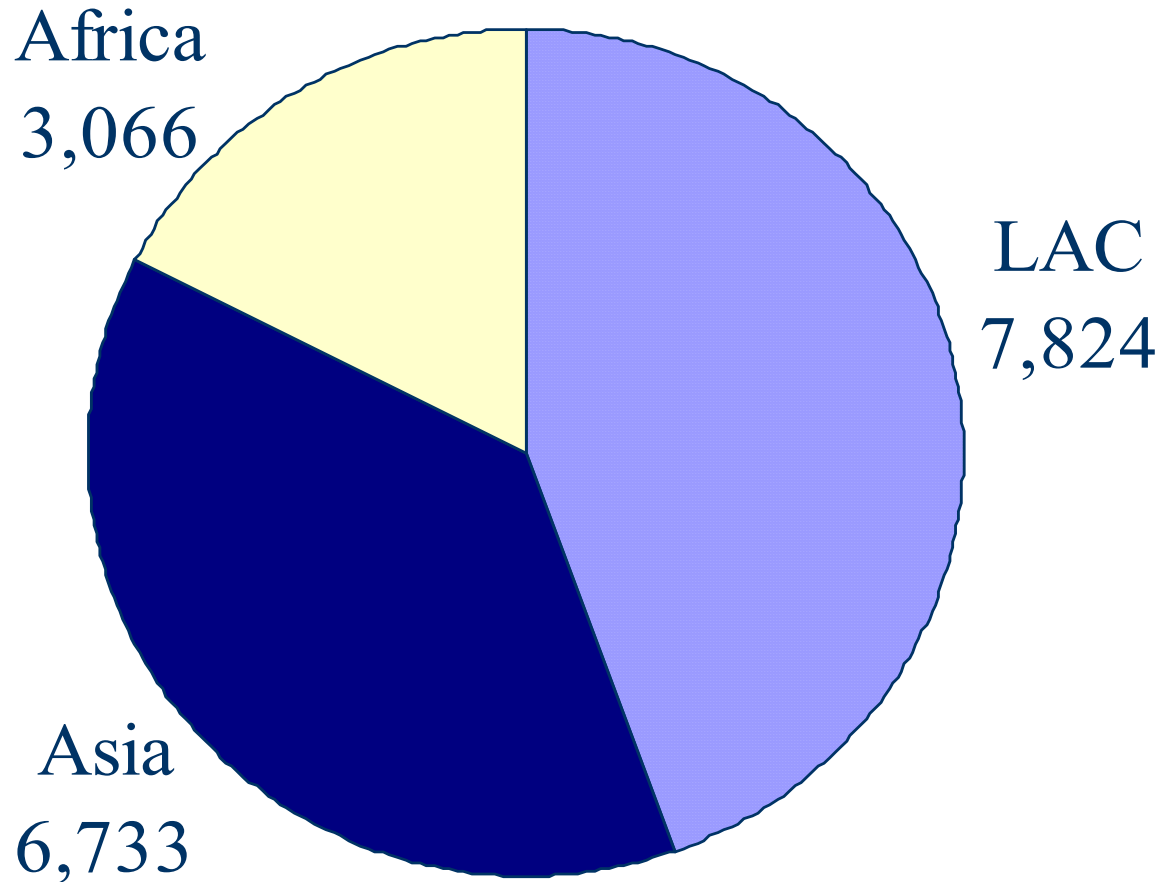
Source: World Resources Institute

Biodiversity: Plant Species by Region



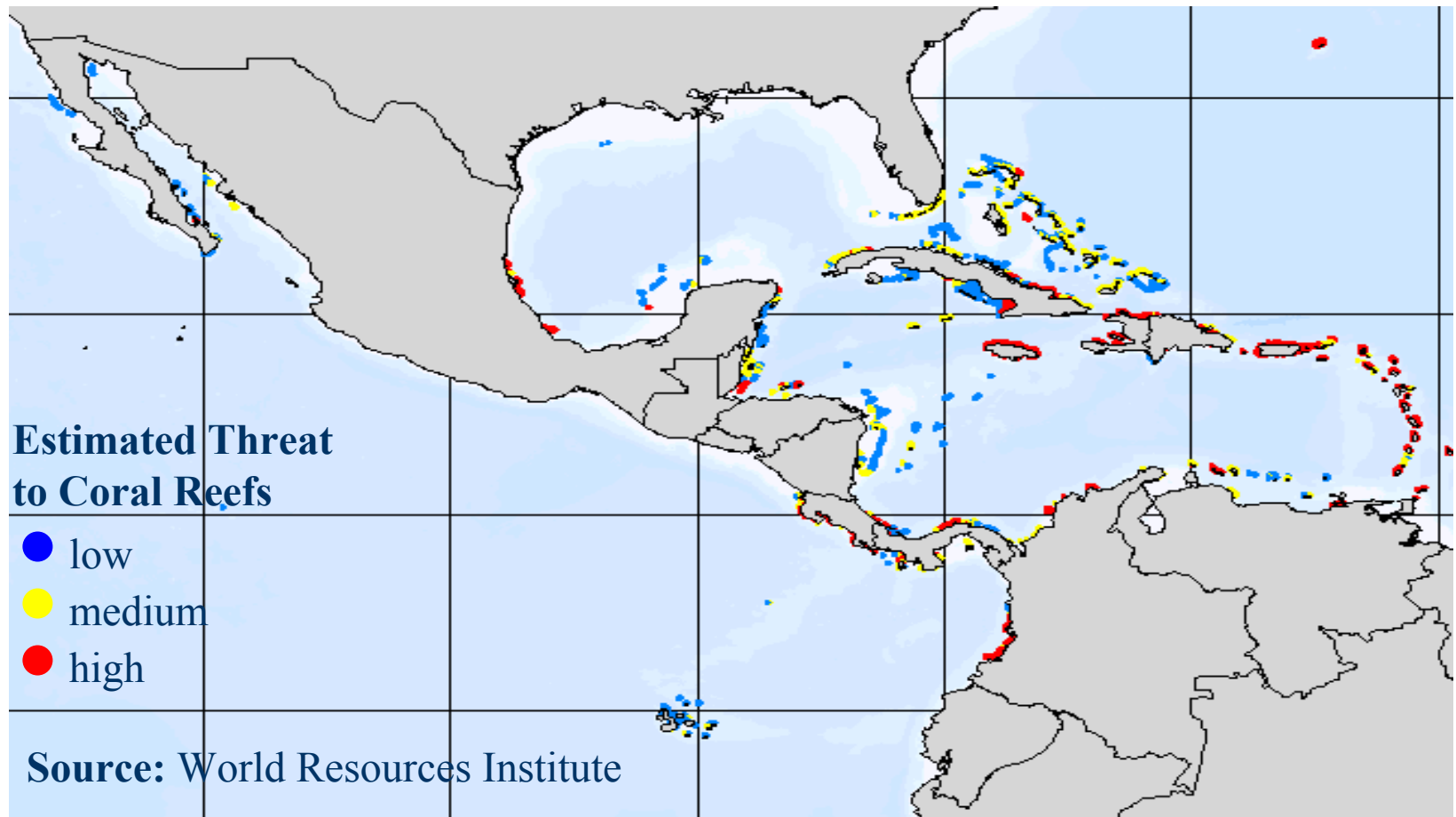
Source: Conservation International analysis
of megadiverse areas (Feb. 2000)

Biodiversity: Bird & Mammal Species



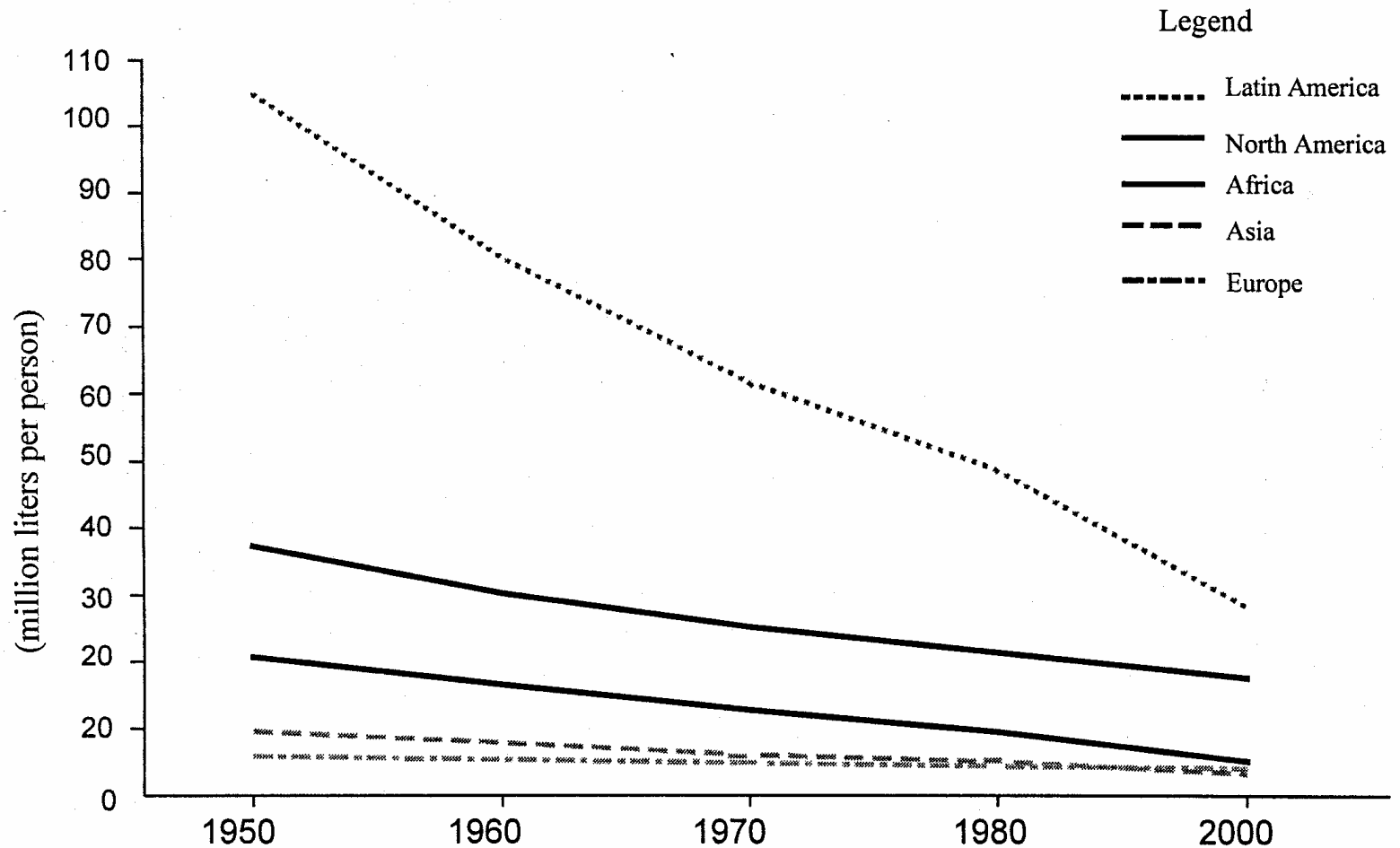
Source: Conservation International analysis
of megadiverse areas (Feb. 2000)

Reefs at Risk



2/3 of LAC coral reefs are highly threatened or threatened due to coastal development, overfishing, marine pollution, runoff from deforestation and farming, and industrial and urban pollution.

Per Capita Water Availability



Source: World Bank

Percent of Population With Access To:

	<u>1990</u>	<u>2000</u>
<u>Adequate Water Supply</u>		
<i>Urban</i>	92	94
<i>Rural</i>	56	62

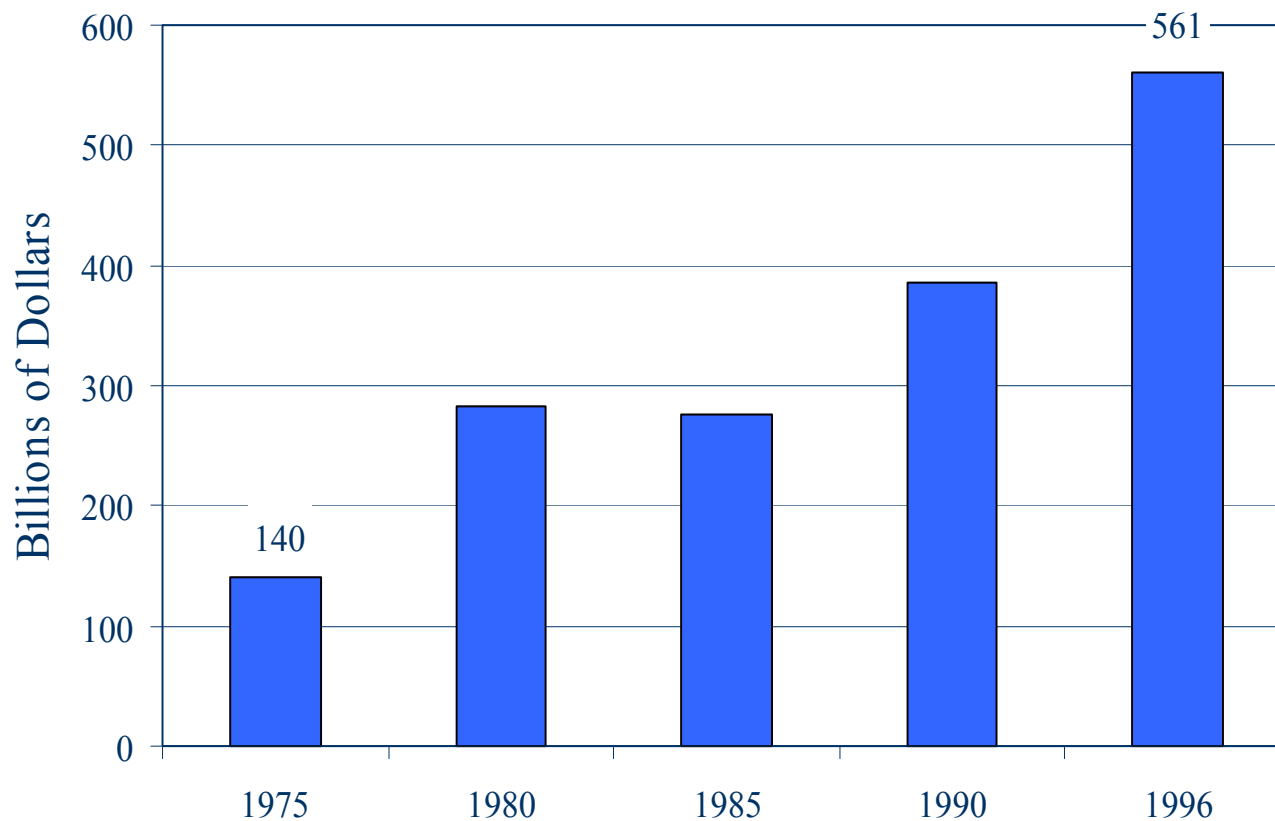
» Only 60% receives disinfected water

<u>Adequate Sanitation</u>		
<i>Urban</i>	85	87
<i>Rural</i>	39	49

» Only 10-15 % of collected sewage receives treatment

Source: Pan American Health Organization (PAHO)

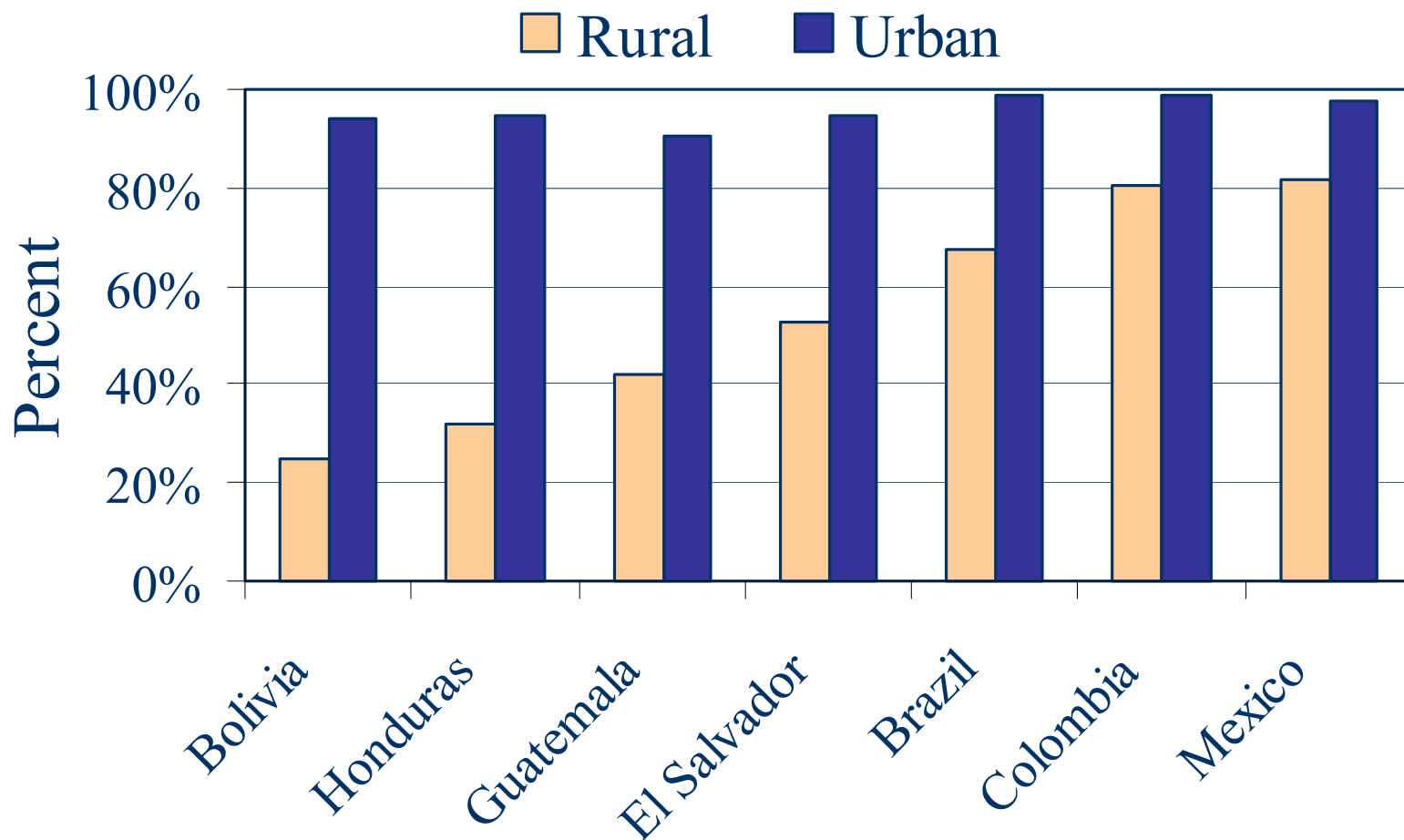
Industrial Growth (1996 Constant Dollars)



Source: World Bank

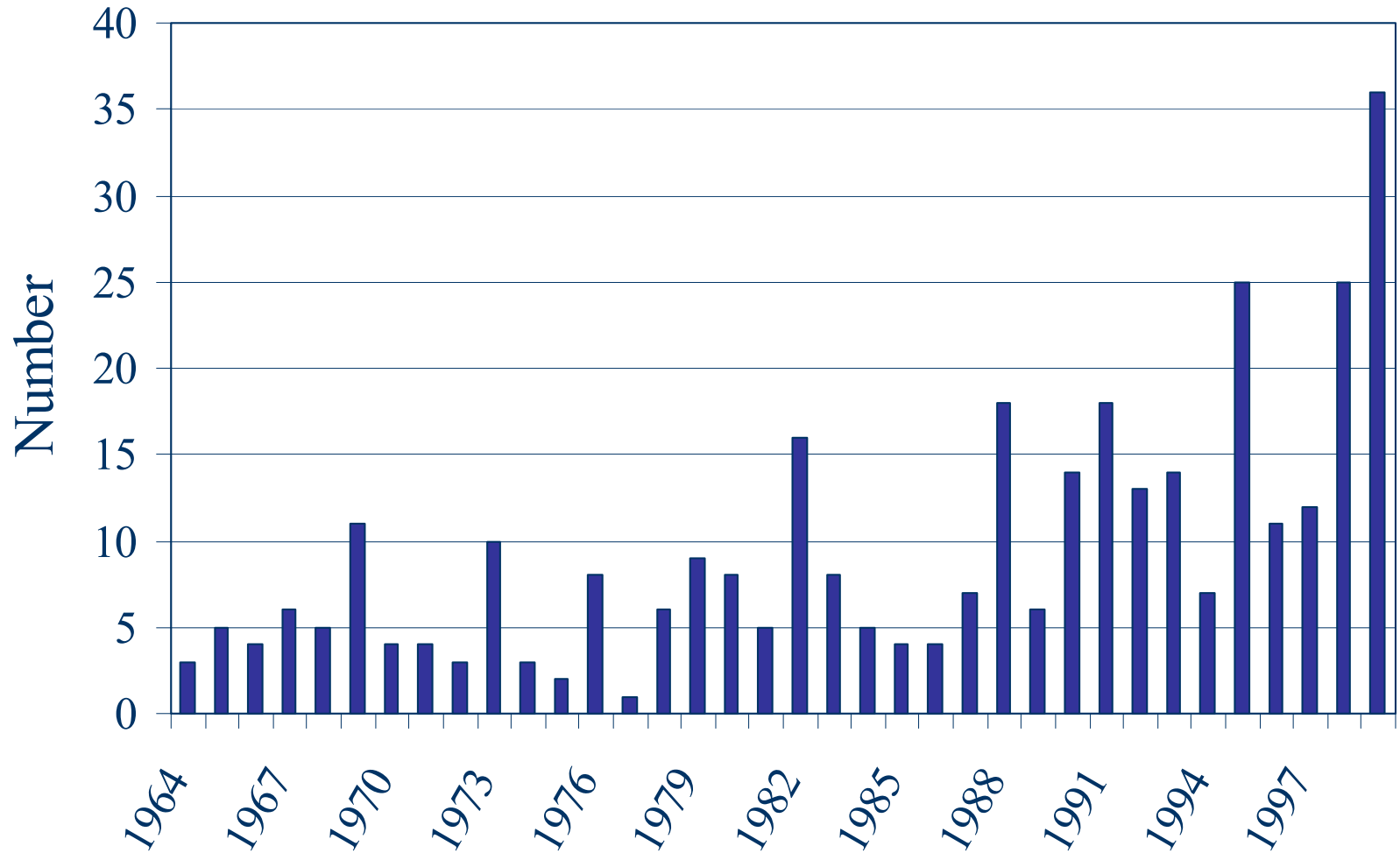
With neither enforced laws nor clean production common in LAC, industrial growth is a proxy for increasing pollution

Urban & Rural Access to Electricity



Source: World Bank, 2001

Disasters in Central America



Source: International Federation of the Red Cross Disaster Report



Summary

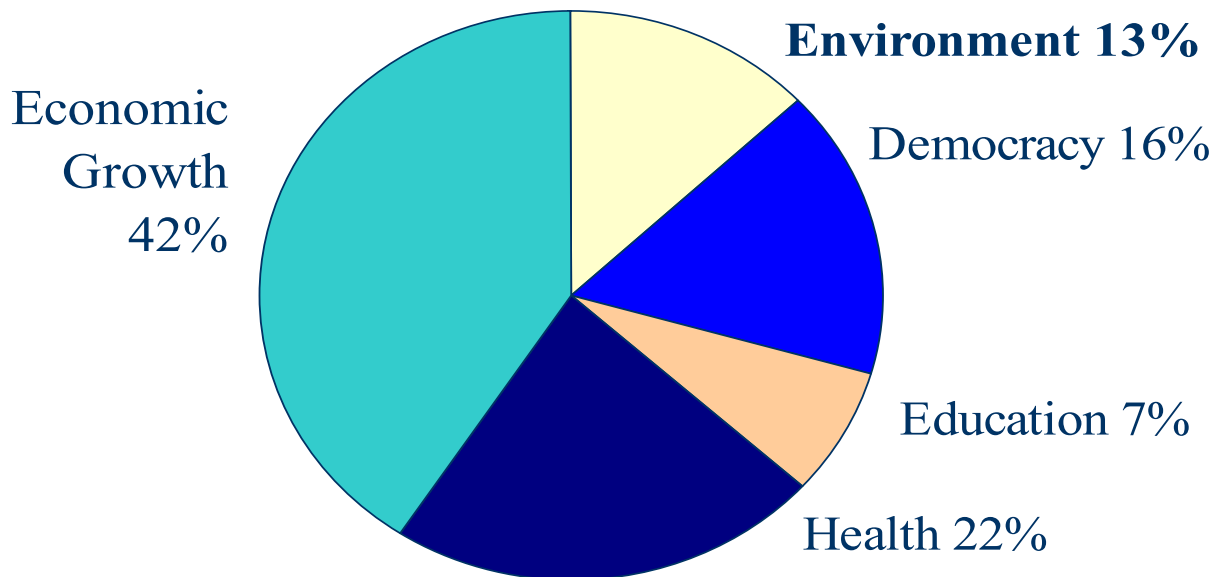
- ◆ Wide-spread over-exploitation and degradation of land and marine resources
- ◆ Loss of biodiversity and habitat degradation
- ◆ Increasing surface and groundwater contamination and depletion
- ◆ Greater pollution from industrial and urban sources
- ◆ Accelerating frequency and cost of disasters

Negatively affects growth, stability, and health



USAID/LAC Response

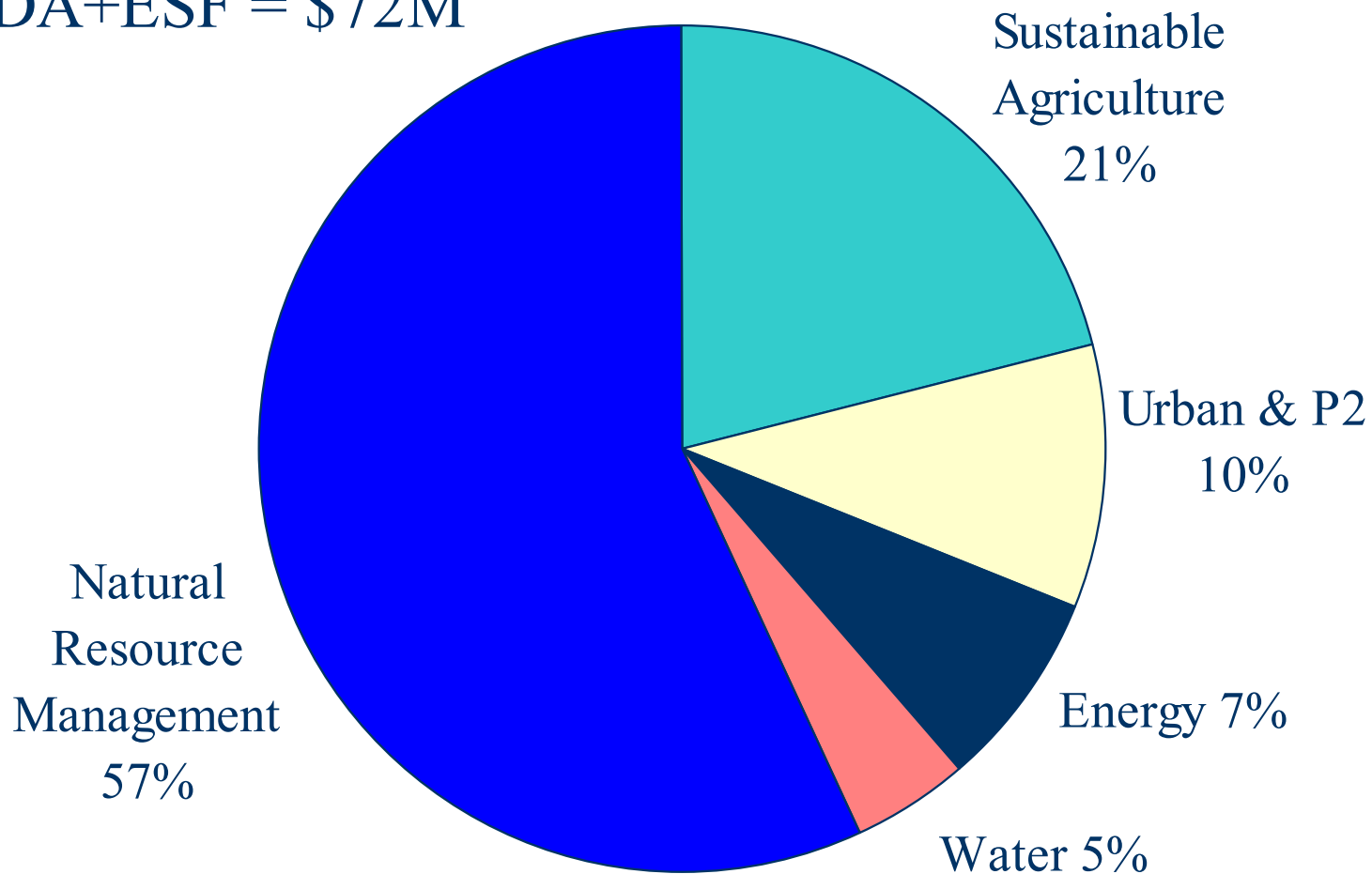
LAC Bureau Budget, 2000



<i>thousands of dollars</i>	Total	DA	CSD	ESF
Economic Growth	226,644	45,708	--	180,936
Health	123,839	54,779	53,082	15,978
Democracy	90,657	34,040	--	56,617
Environment	72,120	59,693	--	12,427
Education	40,345	7,235	22,920	10,190
TOTAL	553,605	201,455	76,002	276,148

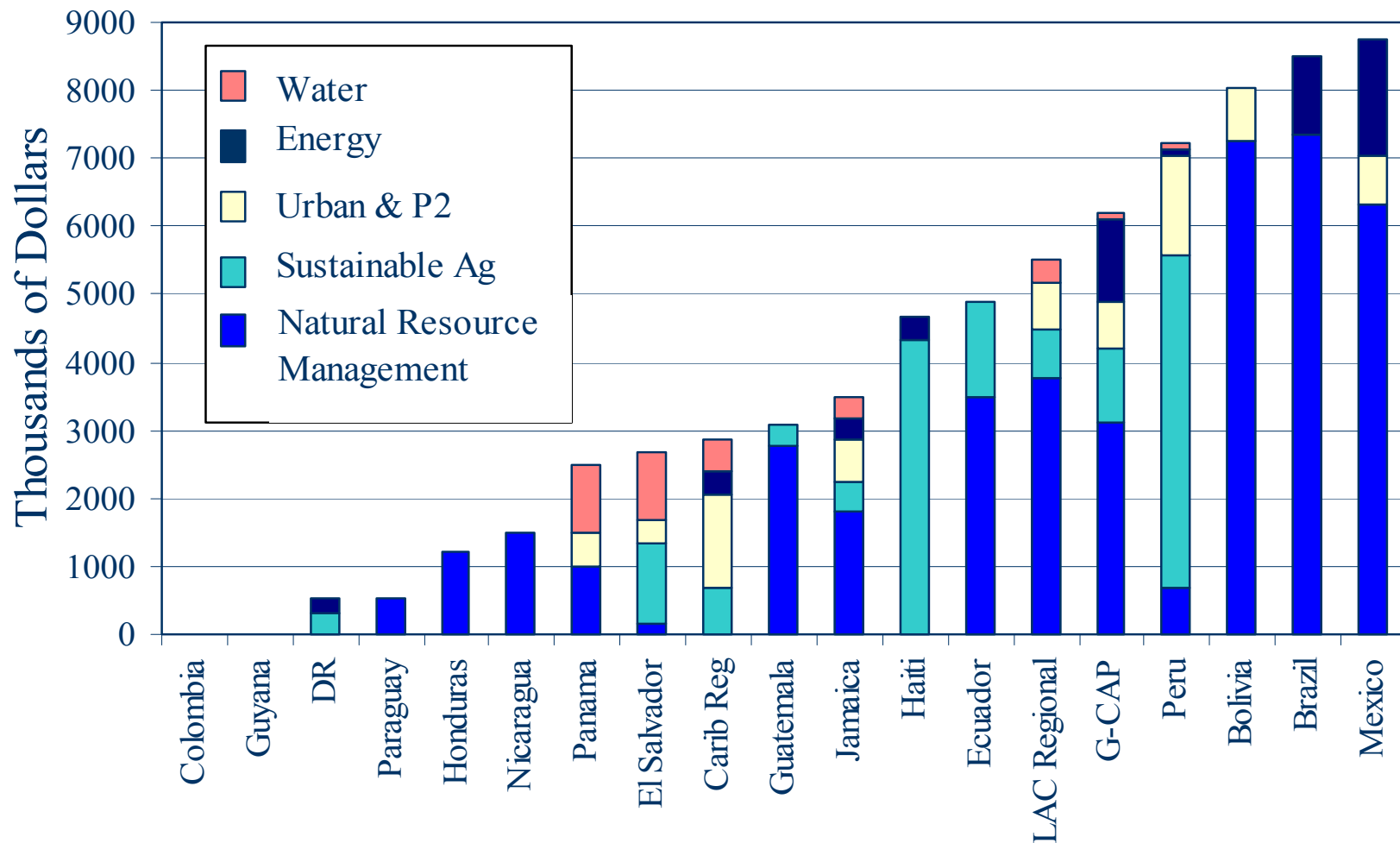
LAC Environment Budget, 2000

DA+ESF = \$72M



LAC Environment Budget

By Operating Unit and Sector, 2000



Forests - Accomplishments

Leadership in sustainable and economically competitive forest management techniques like Reduced Impact Logging

- ◆ **Brazil** - grantee has trained more than 370 managers and practitioners in Reduced Impact Logging

Active promotion of certification for economically, ecologically, and socially well-managed forests

- ◆ **Bolivia** - global leader in certified tropical forestry - 884,980 hectares (BOLFOR)
- ◆ **Guatemala** - global leader in certified community forest - 100,026 hectares certified (MAYAFOR)

Leadership in developing markets for certified products

- ◆ **Bolivia** - \$12 million in certified forest exports (up 61% since 1999) (BOLFOR)



Biodiversity - Accomplishments

USAID's flagship program, Parks in Peril, has:

- ◆ improved management at 37 sites, 15 countries, 28 million acres
- ◆ leveraged \$293 million
- ◆ been a leader in innovative financing mechanisms throughout the region (water fees, private lands conservation, conservation easements, valuation of ecosystem services, and carbon sequestration)
- ◆ strengthened 25 local NGOs to the point that they are national voices for environment



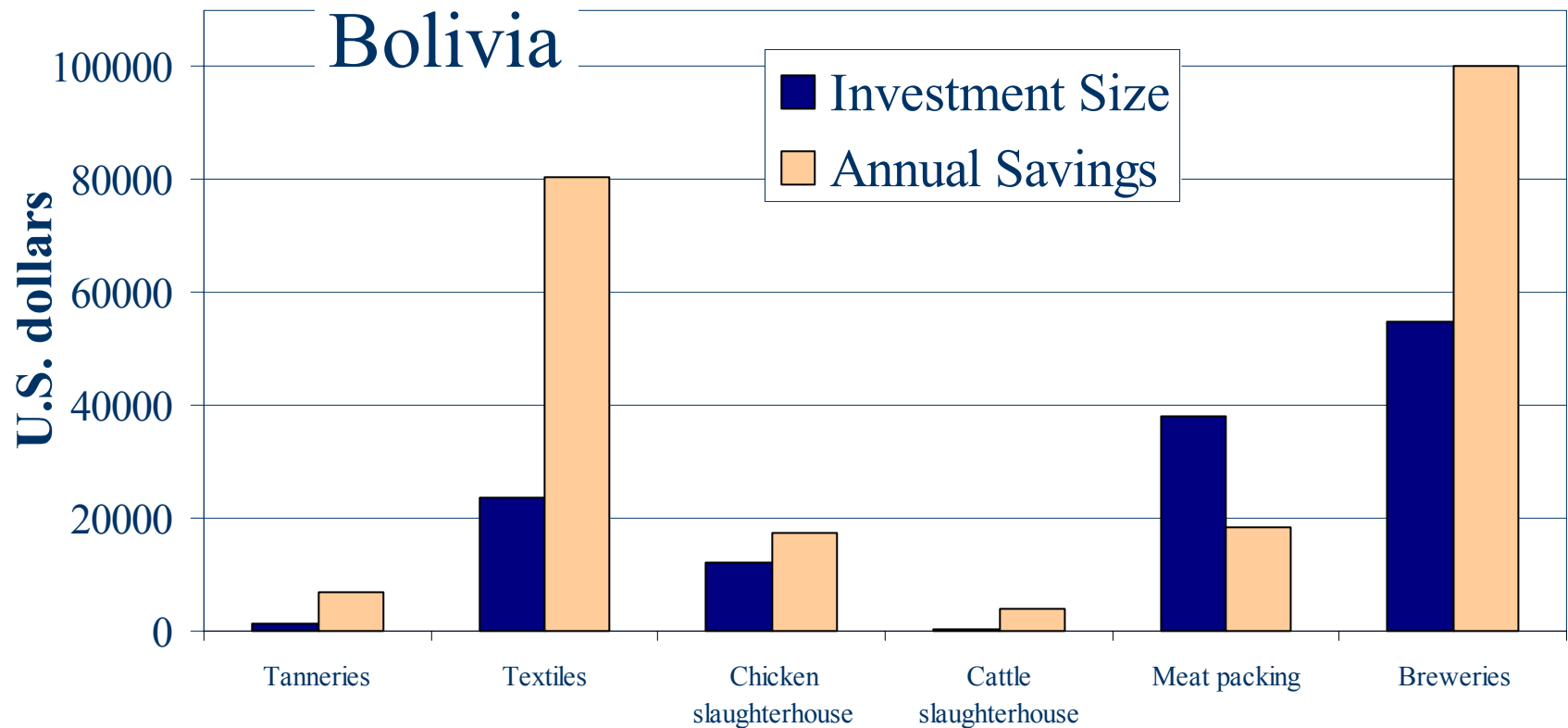
Water - Accomplishments

USAID is a leader in watershed management

- ◆ **El Salvador** - Area under watershed protection (including soil conservation, reforestation, organic cropping and integrated pest management) increased 81% and rural access to clean water increased from 29.5% to 44%
- ◆ **Mexico** - Environment and Democracy programs collaborated to ensure that Chetumal's municipal government considers environmental priorities for the bay as the city plans for water sources and treatment
- ◆ **Jamaica** - Ridges to Reefs
- ◆ **Nicaragua** - Improved Hillside Agriculture

Pollution Prevention - Accomplishments

Average time for savings = investment; 6 months



Cleaner Production Centers

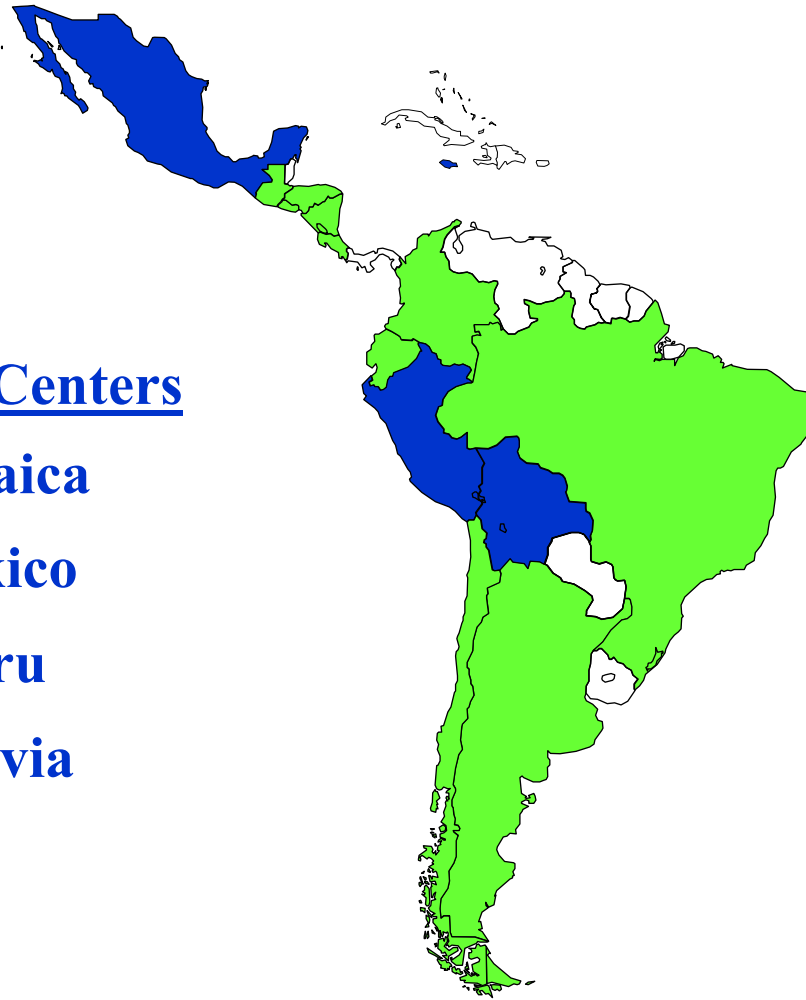
USAID Centers

Jamaica

Mexico

Peru

Bolivia



Other Centers

Guatemala

Honduras

El Salvador

Nicaragua

Costa Rica

Cuba

Colombia

Ecuador

Brazil

Chile

Argentina

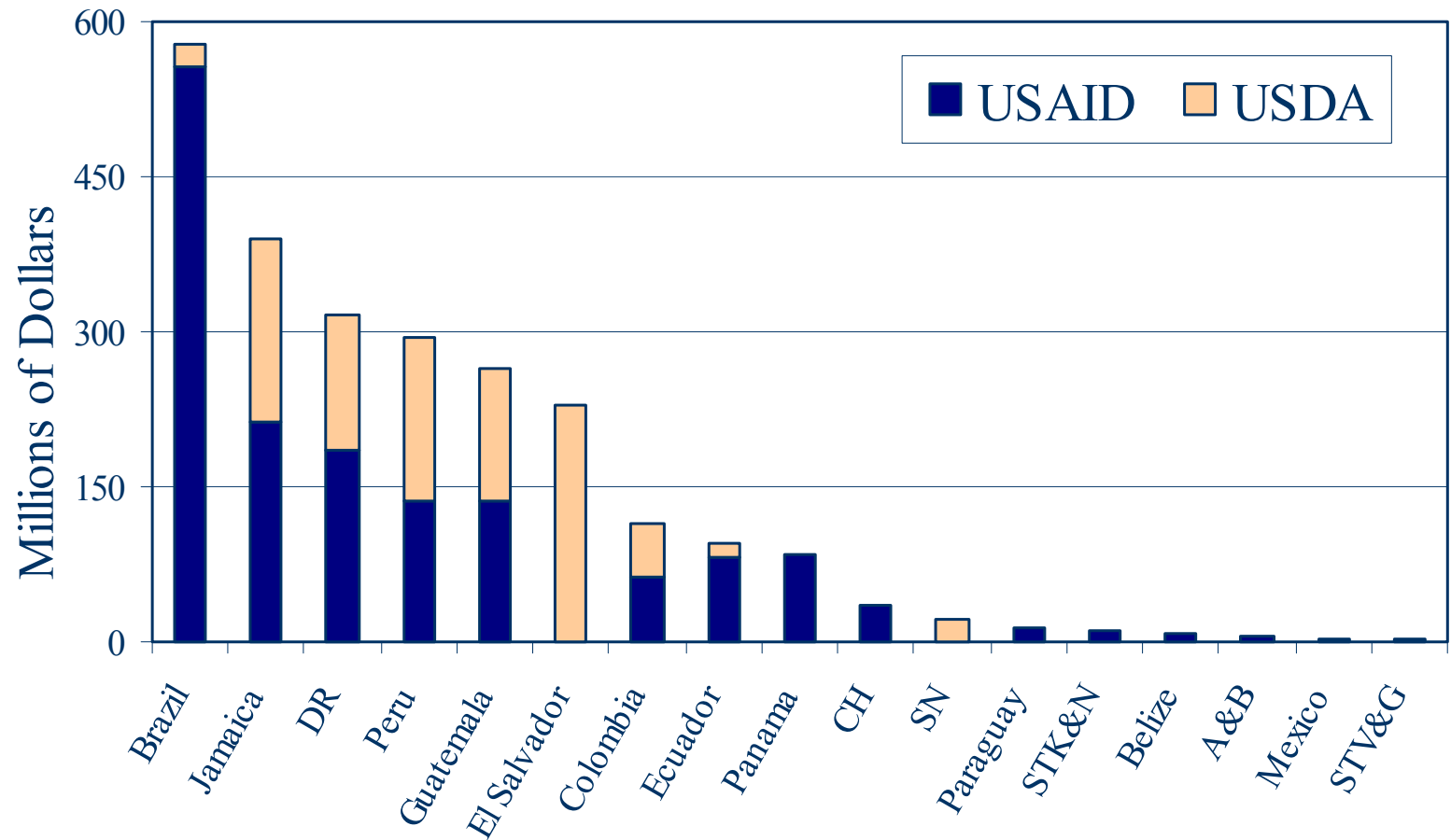


Energy - Accomplishments

- ◆ **Brazil** - USAID influenced the design of a \$150 million energy efficiency loan from the World Bank -- estimated results will reduce CO2 emissions by 17 million tons over a 10-year period
- ◆ **Brazil** - with USAID help, 1% of utility revenue is now mandated for energy efficiency

Environment Funds - TFCA

Debt Potentially Available for Treatment





Recommendations



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- 1) Increase awareness of environment both within and outside USAID (solutions as well as problems)
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- 4) Pollution prevention -- Promote win-win solutions
- 5) Energy -- Influence World Bank and IDB programs
- 6) Re-evaluate rural v. urban focus
- 7) Water -- Foster cross-sectoral coordination
- 8) Incorporate disaster mitigation as an important component of development
- 9) Continue to support environmental programs in all USAID countries